DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004358 Address: 333 Burma Road **Date Inspected:** 30-Sep-2008

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 1400 **OSM Departure Time:** 2400 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Tower **Bridge No:** 34-0006 **Component:**

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 1:

The QA Inspector randomly observed a ZPMC manual torch operator performing heat straightening operations per ZPMC HSR1(T)-4597 to reduce welding induced distortion.

The QA Inspector randomly observed ZPMC welder Hua Gui Mei ID 050295, utilizing the Submerged Arc Welding (SAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S-2, to weld a butt splice piece marks p311 and p312 at Weld Joint (WJ) NSD1-SA11A/F-3B. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 694 amps, 32.9 volts with a travel speed of 594 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed 6 ZPMC welders, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-4332-TC-P4-F, to tack weld doubler plates to Skin Plate A (S). The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

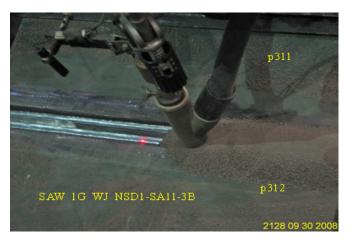
WELDING INSPECTION REPORT

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The QA Inspector randomly observed ZPMC welder ID 040460, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-U3c-S-2, to weld a butt splice between piece marks p968 and SA227 (S). The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 681 amps, 32.3 volts with a travel speed of 583 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welding personnel fitting up 15M single diaphragm to Skin Plate A (S).





Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Wright,Mark	QA Reviewer